development of capitalism is furnished by the Antisemitic feeling which is current among so large a class in Germany. On examination, this feeling may be found to have originated and to exist most strongly in those classes which have suffered most from the transition from the handicraft to the capitalistic factory system of production. Having little understanding of the real source of their injuries, capitalism, they vent their wrath on those who represent that system, the Jews.

We find, therefore, that the German is well qualified for industrial success and is especially well adapted to a highly organized capitalistic system. For all the subordinate positions in a great industry, from the scientist in the laboratory and the head of a department, down to the common unskilled laborer, he is admirably fitted by nature and training. He lacks initiative, but the development of capitalism makes this characteristic less and less indispensable among the mass of people, while it requires rather those qualities in which the German excels. The lack of initiative is supplied by the Jew, and thus we have present in the German Empire all those elements which tend to make the people of a nation industrially efficient.

EARL DEAN HOWARD.

BERLIN.

CREDIT AND PRICES

At its last meeting (1904) the American Economic Association gave up one session to a discussion of the relation between credit and prices. The point of the discussion was, in substance, the question: Does the use of credit raise general prices? This was the only strictly theoretical topic taken up at the meeting. It is perhaps needless to say that the question was not finally disposed of, even in the apprehension of those who took part in its discussion. There was apparent a general reluctance to admit that credit is a price-making factor of considerable importance, at the same time that there seemed to prevail an apprehensive hesitancy about saying so in so many words. This is true only with exceptions, however. On the whole, there may be said to have been a rough consensus to the effect that credit does not have much to do with prices in ordinary times and in the general run of business, however opinions may differ as to its effect on prices in exceptional circumstances. It should be added that the discussion at the meeting was directed mainly, or almost wholly, to those forms

of credit instruments which serve as currency or as a substitute for currency.

It is, of course, not intended here to offer an off-hand solution of this large question of credit and prices, but certain phases of the use of credit in modern business, neglected in the arguments of the association's experts, may well be taken up. What is of immediate interest to modern theory is, of course, the current use of credit in business, and the relation of this business credit to the current price-level, rather than the occasional resort of credit under relatively primitive circumstances. Credit is an expedient of business, and as such it is unquestionably a factor of great importance. The price-level is similarly a fact upon which the business community's hopes and fears center. If one looks to the field of business, simply, and neglects to go behind the immediate facts of business traffic to those of the industrial process and the output of consumable goods, certain commonplace facts bearing on credit stand out in relief — obvious facts which have commonly been overlooked, perhaps because they are too obvious to be seen except with the naked eye. These are such facts as the following: The issuance of a large government loan advances the general rate of discount and depresses the price of investment securities; Business men resort to credit for the sake of gain, the gain being counted in money values; The securities covering the capitalization of a modern corporation commonly have a larger aggregate market value than the underlying tangible assets have before the incorporation; Banking is profitable, also in terms of money values; Prosperous times are attended with a large extension of credit as well as an advance in general prices; Crises and depression bring a shrinkage of credit and a decline of general prices.

From these and other phenomena of the same commonplace character the rough generalization may be drawn that an advance of prices commonly accompanies a pronounced expansion of credit. It is not plain from these facts which of the two correlated phenomena is cause and which is effect, but the great generality with which they are found in company indicates that they stand in a causal relation to one another, possibly as being the effects of the same causes. There is nothing in these general facts to preclude the view that they are mutually related as cause and effect. That a pronounced advance in prices results in an increased extension of credit seems plain from what happens during a period of prosperity, or speculative advance.

The circumstantial evidence runs to that effect, at the same time that such a result is to be expected from the nature of the case. Notoriously, a period of advancing prosperity is a period of relatively high prices, at least in some of the important branches of industry, and usually it is also a period of advancing prices. Extensions of credit, of course, run in terms of money, and are based on the money value (price) of the property submitted as collateral. If this market value of the collateral advances, then the amount of the credit which it will support will likewise increase. The market value of the collateral may increase immediately, as an incident of the advance of general prices; or it may increase through the increased earning capacity of the business property submitted as collateral, this increased earning capacity being in part due to the increased price at which the output of the business can be disposed of, in part, perhaps, to the increased volume of output which the market will carry off. In the latter case, the increased demand for the output is, at least in part, a consequence of the high course of general prices. In the case of crisis or pronounced depression all this chain of consequences is reversed. Such seems to be the rough and general run of correlation between credit and prices as conditioned by the circumstances of prosperity or depression. A closer analysis would show variations of detail under this general rule, and would afford material for detailed study.

The general statement which these facts seem to warrant is that in this connection an advance or decline of general prices brings an expansion or retrenchment of credit. Further attention to the same range of facts seems to warrant the further generalization that an expansion of credit in periods of prosperity, at the same time, causes an advance of general prices; while a general retrenchment of credit, such as occurs in time of crises or acute depression, acts to lower general prices. This point has been noted by nearly all writers on crises and inflation, and no argument need be spent in enforcing it. The manner in which it works has also been analyzed repeatedly. Movements of general credit and general prices have apparently a mutual accelerating effect upon one another, both in case of advance and in case of decline, giving rise to the well-known cumulative process of expansion or of contraction that marks a period of prosperity or of crisis or depression. In practice this cumulative movement of credit and prices is more or less disguised and disturbed by certain (secondary) phenomena, such as the issuance of large loans, particularly government loans; extensive incorporation of new companies

and consolidation of old ones, with the attendant recapitalization of the various items of wealth involved in these operations; the promotion or — in the case of depression or crisis — the collapse of extra-hazardous, speculative business enterprises, etc. These "disturbing causes" would have to be taken up separately. It will probably be admitted that the cumulative movement of credit and prices spoken of has substantially the character assigned it above.

Among the phenomena that usually accompany a period of marked prosperity, and closely related to the expansion of credit during such a period, is a large volume of new capitalization in the form of new incorporations or expansions and coalitions of corporations already in existence. The issuance of corporation securities is a credit transaction, in the sense in which economists have been accustomed to use the word. Indeed, the sale of such securities involves the typical form of credit, as contemplated by the older economists, in that its immediate effect is to transfer the use of the property which it covers from the owner to the debtor, who is presumed to be a more competent user than the owner. All this applies perhaps more patently to the sale of preferred stock and bonds than to that of common stock, but for the present purpose there seems to be no very substantial difference between these different descriptions of securities. It is currently believed, probably on sufficient grounds, that the corporations can make more profitable use of the property than the buyers of the securities, particularly a more profitable use than the buyers could make of it without spending additional time and attention in the management of the property. It is this presumed differential advantage in favor of the corporations that makes incorporation practicable on any appreciable scale. Except for the presumed advantage in gainfulness, it is safe to say, the organization of joint-stock companies would not have become a general practice. This presumed greater earning capacity of the corporations, above the earning capacity of the properties in severalty, may be due to economies of production, superior management, economies of sale, or what not. For the present argument it is only necessary to note that the corporations are presumed to have a greater earning capacity than their underlying properties, and that this presumption shows itself in the market value of the corporations' securities. This market value of the securities is commonly larger in the aggregate than the aggregate value of the underlying properties.

That is to say, the credit transaction which results in the organization of a corporation and an attendant issue of marketable securities commonly increases the aggregate price of the property involved. It is not unusual, latterly, to incorporate a business concern at a nominal capitalization of about 200 per cent. of the current market value of the underlying properties; the resulting securities will sell below par; but in the case of an ordinarily sound and sagacious incorporation the total capitalization will still have a market value of something more than 100 per cent. of the value of the underlying properties.

In this case, then, a credit transaction raises the price of the property immediately involved. Whether and how it affects the prices of other items of wealth is a question not easily answered. If the advantages of incorporation are in all cases differential advantages only, then the presumption would be that the prices of other property engaged in similar lines of business should be depressed in consequence of the incorporation. It does not seem probable that the depression in the prices of similar property outside of the given corporation, if such a depression results at all, is sufficient to balance the increase in the price of the assets of the corporation. In case the given incorporation results in a monopoly, a more or less extensive enhancement of prices may be expected to follow in its marketable output of goods or services, apparently without any necessary countervailing effect upon the prices of other goods. Price changes of this latter class, however, will probably be regarded as the effects of monopoly rather than of the credit transactions which initiate the monopoly. They need therefore not be discussed here. They could properly be discussed here only in so far as credit relations are to be accounted a necessary basis of any efficient monopoly. Under existing conditions this is probably the case, but the relation between the credit relations which enable monopolies to be organized and to operate and the resulting effect on prices is, after all, so remote that an analysis of its consequences would take the present argument out of its way.

Again, the issuance of a very considerable loan, such as a war loan of the larger sort, is known to lower the general market value (prices) of securities with a fixed interest or dividend charge. At such a juncture, because of the large demand for credit, general interest advances, and the general level of capitalization correspondingly declines; that is to say, the market value of incorporated business declines, while the "price of money" advances. The prices of

such lines of goods as are to be bought with the borrowed funds are likely to advance, and this may induce an advance in such capital as is concerned with the supply of these goods, but all that is an indirect consequence of the credit transaction rather than an immediate effect of it.[1]

The phenomena spoken of so far are of the class which the older economists would call "disturbances," rather than developments in the normal course of business. What happens in the case of such disturbances need not be taken as evidence of the effect of credit upon prices in the regular course of business in ordinary times, where no such perturbations occur, or apart from all perturbations of this kind. In the regular course of business there is, no doubt, a larger aggregate volume of credit, proportionately either to the stock of specie or to the aggregate amount of tangible wealth owned in the community, in use at present and in this country than here formerly or now anywhere else. Will general prices range higher or lower because of such a more extended use of credit? Does the more extended and the increasing use of credit during the past thirty or forty years affect the general course of prices during the same period? This question has been argued by comparing the state of things at present with the corresponding facts of a generation ago, but without conclusive results. No canvass of the statistical material bearing on the case can directly reach a solution of the question, because the variables included in the problem are too many and too unprecise. On the other hand, something in the way of tenable general conclusions may probably be arrived at through an examination of the aims which actuate borrowers and lenders, and of the method by which the work of credit extension is carried on, although such a line of inquiry can not be expected to yield anything like precise results.

As has just been noted, the credit transaction known as the floating of corporation securities results in an increased market value of

[1] This phenomenon of an equilibration between the rate of discount and the market value of securities is one of the most characteristic and indicative features of the modern business situation. An exhaustive study of it may be expected to result in a revision of the received views of credit, capital, interest, and prices, and of the interdependence of these several phenomena; but it is out of the question to pursue an inquiry of that magnitude here. It seems evident, however, that a fuller inquiry along that line should confirm the view here spoken for, that general credit and prices are intimately bound together in a relation of mutual cause and effect.

the aggregate properties involved. This increased market value is more or less permanent, somewhat in proportion as the capitalization is more or less "conservative." At the same time, it is one of the reasons for the promoting of new corporations. The promoter's bonus, with other like charges and perquisites, comes out of the margin of increase in price. The incentive to credit extensions of this kind is a prospective gain in terms of price, and in this class of transactions the business man's hope of gain is at least not commonly disappointed, even if the permanent increase of the values which he manipulates may not be as large as his anticipations.

In other credit transactions which differ from the floating of new companies in that they do not materialize in the form of corporation securities, but which are of the same kind in that the borrowed funds are made to serve the conduct of business, the end sought is of the same kind — a gain in terms of price. This gain may appear primarily as an increase in the market value of the property in which the borrowed funds are invested, as in the case of a real-estate speculation and the like; or it may appear only as a secondary effect, as an increase in the aggregate value of the output of an industry in which the funds are invested. The presumption would be that in this case also the hope of gain is not altogether disappointed. But even if the business man's hopes of gain could be shown to be false in the average of cases of this class of loans, it would not follow that credit transactions of this class initiate no enhancement of prices.

Loans of the kind just spoken of, procured with a view to investing the borrowed funds in a somewhat fixed form in business, have the direct effect of enhancing the market value of the general description of property in which they seek investment. The borrowers bid up the kind of property which they seek to buy. Whether there is a countervailing decline in the general prices of other property is doubtful and may be left on one side for the present, particularly as the argument of the next few pages approaches that question from another side.

In the ordinary conduct of business there is an extensive and increasing resort to credit in the way of loans, extended by banks in the form of deposits and by other credit institutions, such as trust companies, insurance companies, and the like, without their taking the form of deposits. In general, but more particularly where such a loan takes the form of a deposit, these extensions of credit would, by

economists who hold that normal credit does not affect prices, be considered to be an expedient for facilitating an exchange of goods. The goods which serve as collateral for the loan, it is held, are by a more or less roundabout process of accounting exchanged for the goods paid for out of the deposits. This is in substance the theory which has felicitously been named "the refined system of barter." As bearing on the question of credit and prices, this doctrine declares that such loans do not affect prices, because the borrowed funds are nothing but the fluent form of the value of the underlying collateral. The loan and the collateral are held to offset one another as demand and supply, the loan adding no more to the demand side — the effective purchasing power seeking goods — than the collateral adds to the supply side of the market situation — the effective offering of goods seeking sale. Hence, it is held, no enhancement of price can arise from such loans, the increase of funds offered in purchase being no greater than the underlying increase of goods offered for sale.

A singular query presents itself at this point. Not only is it true that the funds procured by loans of this kind, in a case of "normal" credit extension, are no larger than the value of the underlying collateral, but in the ordinary run of things the loan is not as large as the value of the collateral. No banker would be held blameless if he should extend his loans to the full ascertained value of the collateral. If the argument of the "refined system" is sound, will it not lead to the conclusion that credit extensions of this class lower general prices, since it should follow that the increase of the market demand due to the borrowed funds is overbalanced by the increase in the supply of goods represented by the collateral? The answer to the question comes into sight, if this argument is pursued a step farther.

The argument for "the refined system of barter" assumes that the collateral is of the nature of a bill of sale. It appears to break down immediately in so far as the collateral is not of this character, if it consists of property not sold or not designed presently to be sold; as, e. g., where the collateral is corporation securities or paper similar to corporation securities in the respect that it represents property which the borrower has not sold and is not trying to sell, but which is held as security during the term of the loan. The doctrine seems tenable only in so far as the collateral is of the nature of a bill of sale. A good share of current deposits and the greater part of other current loans are not of this character. The borrower's resort to credit in these cases is not an incident in the sale of the collateral. The pre-

sumption, indeed, is that he does not wish to sell. But it is safe to say that he ordinarily wishes to buy, whether it be goods, securities, or what not. Here the balance which is sought to be established between goods sold and goods bought, in the doctrine of "the refined system of barter," is upset by the fact that property not sold and not designed to be sold is made a basis of credit extension. The (discounted) value of this collateral enters the market as a factor in the demand for goods. If the determination of price is conceived in the customary way to be an outcome of the play of demand and supply, it appears that these considerations force the admission that general prices should advance as a result of these credit extensions. The general demand has been increased by "coining into means of payment" property which is not included in the general supply. It appears that, in so far as it is of this character, as it is to a very large extent, credit should raise prices.

The objection is ready, indeed it has in substance been made by those who speak for the view under discussion, that in the end the borrower must sell something or other in order to meet obligations falling due, and that in this way the balance is maintained and the transaction reduces itself to a virtual barter. All of which may conceivably be true as applies to a given transaction, although it is not unusual for such a transaction to be followed immediately on the maturity of the loan by another like transaction which virtually continues the life of the original loan. But this line of defense overlooks the time element, which is of the essence of any credit transaction. During the credit period the balance between demand and supply is not maintained, supposing the argument of the "refined system" to be otherwise sound. And from this it follows that the balance between general demand and general supply (conceiving supply in terms of goods) fails, constantly and in the nature of things, by the whole amount of outstanding credit obligations, after deducting such loans as have been sunk in the purchase of industrial equipment or have otherwise been withdrawn from the active market as a means of payment — indeed, it may even be an open question whether this deduction should be made, or just what force should be assigned to this qualification. Evidently this argument applies to the whole mass of outstanding credit, whatever the nature of the collateral. During their term the loans secured by ordinary commercial paper constitute an addition to the means of purchase as well as those loans that are secured by property not intended for sale.[2]

[2] Cf. also pp. 37–39 below.

Accordingly, such portion of the outstanding mass of credit as is available as a means of purchase must be taken to constitute an effective price-making demand and to have a force, as a price-making factor, equal to that of a like amount of hard cash used as currency. The rest of the credit outstanding at any given time, not available as a means of payment, is, perhaps, larger than this that may be called the mass of active credit, and if this "dormant" credit be deducted it appears that what is left as an active price-making factor is an indeterminate fraction of the whole. The secondary price-making effects of the loans sunk in investment are here disregarded; they seem, on the whole, to go in the direction of an enhancement of general prices, but they are complex and variable, and cannot be taken account of here except as a factor for which an indefinite allowance is to be made. It remains true that the mass of active credit, which serves as a current means of payment and so immediately affects prices, is a function of the whole mass of credit outstanding.

Now, when the mass of outstanding credit shrinks appreciably, as in a period of depression or crisis, the shrinkage ordinarily affects the credit available for current means of payment first or primarily. The consequence is a shrinkage of prices, both of goods in the open market, actively seeking a purchaser, and (secondarily) of the prices of the industrial equipment and similar items of property not intended for direct sale. Herewith the value of the collateral shrinks, forcing a reduction of outstanding loans, leading to a sale of collateral and so to an increased supply of things for sale, at the same time that the effective demand has been reduced by a shrinkage of the credit extensions used as a means of purchase.

In the doctrines of the classical economists, who at this point have not been superseded, the phenomena of credit are formulated in terms of their presumed social expediency. The actual motives and aims which animate those business men who seek credit, as well as those who carry on the traffic in credit — bankers, brokers, etc. — are disregarded, and in the stead of these business motives the presumed beneficial results of the traffic are imputed to these business men as the motives of their traffic. Perhaps for this reason the question of the banker's gain and its relation to credit and prices is commonly not broached in the received doctrines of credit and prices. Without the prospective gain the banker would not do business. So the question

suggests itself: Why is banking profitable? And what, if any, relation is there between prices and the profits of banking?

Broadly speaking, banking is profitable chiefly because the banker lends more than he has or borrows. This is his chief, though not his only, source of gain. His gains are derived from payments for two distinct kinds of service which he renders his customers. The two are currently not distinguished, the remuneration for both being indiscriminately spoken of as discount or interest, but for the present purpose a distinction seems desirable. (*a*) Banks discount commercial paper, and (*b*) banks and other concerns doing a credit business make loans on collateral which is not of the nature of a bill of sale.

(*a*) In discounting commercial paper the banker does not create credit or increase the volume of outstanding credit obligations. In substance he guarantees or authenticates the credit extension already created by the writing of the commercial paper which he discounts. A bill of sale for future payment is a credit instrument, and the extension of credit involved in its use is effected in the sale for future payment which it covers. The volume of credit so covered by the bill of sale is by the banker's authentication converted into a form available for circulation. In substance, he insures and authenticates it, and for this service he is paid in the discount of the bill. The form of the transaction gives the appearance of no increased demand for goods, since the volume of credit, and so the volume of money values available for purchase, has not been increased by the banker's intervention. This gives color to the claim that in this transaction there is no addition to the available purchasing power, and therefore no effect on prices; but this color is due to oversight of the fact that the bill itself is an instrument which covers an extension of credit already effected. It is an open question whether the banker's intervention in such a case, as authenticator of an existing volume of credit, is to be conceived as increasing the effective demand for goods. But a negative answer to this question is only an evasion. If the increase of available credit in such a case is not made by the banker, it is made by the makers of the bill. The net result is much the same.

(*b*) In making a loan on collateral which is not of the nature of a bill of sale, but represents property not intended to be sold, the banker, or any similar concern doing a credit business of this kind, creates a new volume of credit. The remuneration for this service also is called interest or discount. Such a transaction creates credit, and so adds to the borrower's funds available for purchase, and there-

fore increases the effective demand for goods, and by so doing helps to enhance prices. In such a transaction the banker lends funds which he does not possess. He is enabled to lend more in the aggregate than the whole of the funds which seek emplacement in loans through his agency. Or, to phrase it differently, he coins into means of payment goods which do not change hands in the resulting transactions of purchase and sale. Hence borrowers are enabled to borrow more in the aggregate than all the funds which the ultimate lenders have to dispose of — more than the whole of the funds seeking investment as loans plus that collateral which represents property sold or seeking sale. The purchasing power placed at the disposal of debtors is larger because of the banker's mediation than it would be without it.[3]

From this augmented purchasing power the banker deducts his remuneration as a discount. This discount is not withdrawn from the aggregate loan fund. It serves the same purpose as any other item of banker's assets, and enables him to lend more than the whole of it, or, if the wording be preferred, it enables him to make advances on collateral exceeding its own amount.

The banker's debtors, of course, negotiate their loans with a view to using the funds as a means of payment. The funds have no other use, except further lending, as in the hands of borrowing bankers. Hence, other things equal, it should follow that bank credit acts to raise prices by as much as it increases the nominal purchasing power in the hands of the business community. When the funds so secured by unmarketed collateral have been spent in the purchase of goods, the goods so purchased may in their turn be hypothecated in the negotiation of a further loan; with the result that there is a further augmentation of the volume of credit, a further increase of the effective demand for goods, and a further effect on prices. The whole movement may therefore take on a cumulative character, as it does in a marked degree in a period of prosperity, or speculative advance. Something of this cumulative character there no doubt is in the credit situation at any given time during ordinary times.

For some time past the mass of outstanding credit has been

[3] It may be that a closer analysis would show that the banker's service to his customers is also in this case, as in case (*a*), that of guarantor or authenticator of their credit and that his remuneration in the discount obtained is of the nature of a payment for responsibility assumed. If this view be taken, the form of the argument changes, but its bearing on the question in hand is not materially changed.

growing gradually larger, on the whole, and the effect of this movement should logically have been to advance general prices in a corresponding degree. The enhancement of general prices due to this cause has apparently been offset by cheapened production of goods, due to technological improvements. How far this countervailing effect of cheapened production has neutralized, or more than neutralized, the enhancement due to credit cannot be considered here. The volume of goods seeking a market has also greatly increased during the same period, and this should also have a countervailing effect. It should mask or offset the enhancement of prices due to an increased resort to credit, but this is also a matter that does not belong here. So also the relation of credit, as a price-making factor, to the production of the precious metals is no doubt a matter of some consequence in this connection, but that, too, is question of detail that requires treatment by itself.

THORSTEIN VEBLEN.

THE UNIVERSITY OF CHICAGO.